MAY 15 '44

CALIFORNIA'S HEALTH

WILTON L. HALVERSON, M.D.
DIRECTOR OF PUBLIC HEALTH

STATE DEPARTMENT OF PUBLIC HEALTH
ESTABLISHED APRIL 15, 1870

PUBLISHED SEMI-MONTHLY

ENTERED AS SECOND-CLASS MATTER FEB. 21, 1922, AT THE POST OFFICE AT SACRAMENTO, CALIFORNIA, UNDER THE ACT OF AUG. 24, 1912. ACCEPTANCE FOR MAILING AT THE SPECIAL RATE OF POSTAGE PROVIDED FOR IN SECTION 1103, ACT OF OCT. 3, 1917

STATE BOARD OF PUBLIC HEALTH

DR. ELMER BELT, President, Los Angeles
DR. SAMUEL J. McCLENDON, San Diego
DR. WILTON L. HALVERSON, Executive Officer, San Francisco
DR. HORACE L. DORMODY, Monterey
DR. SANFORD M. MOOSE, San Francisco
DR. NORMAN F. SPRAGUE, Los Angeles
DR. CHARLES E. SMITH, San Francisco
DR. JAMES F. RINEHART, San Francisco

SACRAMENTO (14), 631 J STREET, 2-4711 — SAN FRANCISCO (2), 668 PHELAN BLDG., 760 MARKET ST., UN 8700 — LOS ANGELES (12), STATE OFFICE BLDG., 217 W. FIRST ST., MA 1271

VOLUME 1, NUMBER 20 — APRIL 29, 1944 — GUY P. JONES, Editor

EPIDEMIC MENINGITIS IN SAN FRANCISCO

J. C. GEIGER, M.D., Director of Public Health, San Francisco

When in 1942 a total of 33 cases of epidemic meningitis, with 10 deaths, was reported, it appeared that the disease might be entering upon an epidemic period. Subsequent events proved this to be the case, for at the close of 1943 there had been reported a total of 153 cases, the highest number ever to be reported in any one year of record in San Francisco. Case reporting reached a peak in March, 1943, with 28 cases, more than had ever previously been recorded in a single month. That this increased incidence did not subside in 1943 is evident from the fact that for the first 12 weeks of 1944 64 cases have been recorded, 42 per cent of the annual total for 1943.

The experience in San Francisco has been that a period of increased incidence may prevail for several consecutive years and although the disease does not appear precisely cyclic in the nature of its recurrence, the sudden appearance of high incidence occurs at intervals of from 10 to 12 years (Chart No. I).

That the epidemic spread of meningococcic meningitis is emphasized and fostered by war conditions is obvious. Concentration of service personnel in camps and on ships, and of civilian workers in centers of industry, shifts of population to war-made activities have a direct effect on the spread of disease, epidemic meningitis as well as less infectious ones.

The past five years has witnessed a change in the treatment of epidemic meningitis. Fewer cases receive serum in treatment. The use of sulfonamides has passed from the experimental stage to an almost routine procedure. Because of this change and the current interest in war-time epidemics, a review of the records in San Francisco for the past five years has been undertaken. Some of the details of this study appear in the attached tabulations. The total of local cases for the entire period is 203, of which 75 per cent occurred in 1943. One hundred thirty-two cases, or 65 per cent, were found in males, 71, or 35 per cent, in females. Although the first three years show only a few cases and therefore offer little to evaluate, the records indicate that in 1939 one death occurred in every six cases reported; in 1940, one in every two; in 1941 one in seven; in 1942 one in about five; in 1943 one in seven, and for the entire period one in about six. In spite of new therapy and improved control measures mortality remains high. This apparently is contrary to the generally accepted belief, and while it remains true for this particular five-year period, it may not hold for periods where no chemotherapy was employed.

EPIDEMIC MENINGITIS (MENINGOCOCCIC)
TABLE I. CASES AND DEATHS

Year	Local cases Male	Local cases Female	Local cases Total	Nonlocal cases Male	Nonlocal cases Female	Nonlocal cases Total	Deaths Recorded	Deaths Resident
1939	5	1	6	2	--	2	3	1
1940	2	2	4	--	--	--	2	2
1941	3	4	7	1	--	1	1	1
1942	27	6	33	5	1	6	10	7
1943	95	58	153	25	10	35	29	27
Total	132	71	203	33	11	44	45	38

TABLE II. AGES

Age group	1939	1940	1941	1942	1943	Total	Per cent in total group
Under 1 yr.	2	1	-	3	9	15	7.4%
1– 4 yrs.	-	2	2	9	16	29	14.3%
5– 9 yrs.	1	-	-	1	9	11	5.4%
10–14 yrs.	2	-	1	2	8	13	6.4%
15–19 yrs.	1	1	1	1	17	21	10.3%
20–24 yrs.	-	-	1	5	23	29	14.3%
25–29 yrs.	-	-	-	2	10	12	5.9%
30–34 yrs.	-	-	1	3	15	19	9.3%
35–39 yrs.	-	-	-	1	17	18	8.9%
40–44 yrs.	-	-	-	2	13	15	7.4%
45–49 yrs.	-	-	-	1	4	5	2.5%
50–54 yrs.	-	-	-	1	3	4	1.9%
55–59 yrs.	-	-	1	1	4	6	3.0%
60–64 yrs.	-	-	-	1	2	3	1.5%
65 yrs. over	-	-	-	-	3	3	1.5%

Fluctuations in age distribution are not particularly significant. The highest percentage of cases within a group is in the 1-4 and 20-24 year old group. 58 per cent of the cases occurred in persons under 25 years of age.

TABLE III. CENSUS TRACTS

Districts	1939	1940	1941	1942	1943	Total	Per cent of total in area
A	2	-	1	7	32	42	21.0%
J	1	1	-	3	30	35	17.5%
K	-	-	-	3	20	23	11.5%
N	-	2	2	3	11	18	9.0%
M	2	1	1	3	10	17	8.5%
C	-	-	1	6	9	16	8.0%
L	1	-	-	5	8	14	7.0%
O	-	-	-	1	10	11	5.5%
B	-	-	-	1	6	7	3.5%
P	-	-	1	-	4	5	2.5%
G	-	-	-	-	3	3	1.5%
Q	-	-	-	-	3	3	1.5%
E	-	-	1	-	1	2	1.0%
H	-	-	-	1	1	2	1.0%
D	-	-	-	-	1	1	0.5%
Unknown	-	-	-	-	4	4	2.0%

It is noted above that 59 per cent of the cases are found in four of the 15 census tract areas in the city. These in descending order of magnitude are A, J, K and N. Latest census enumeration available shows these areas to be among the largest in population, but it is also true that in each there are one or more areas of overcrowded dwelling places, a factor not to be disregarded in the spread of this disease.

Since, as before stated, the earlier years of the period offer only a few cases, the remaining tables are presented for 1943 only.

TABLE IV. OCCUPATIONS, CASES AND DEATHS

	Total	Per cent in group
Shipyard workers	19	14.0%
Service men	22	16.2%
School children	18	13.2%
Infant and preschool	29	21.3%
All others including housewives	48	35.3%
Not stated	17	-----

A segregation on occupations was made only to determine the percentage of cases found where there is a concentration of civilian or military population. From such segregation it is indicated that about 35 per cent of the cases for 1943 were in children of school and preschool age, 16 per cent in service men and 14 per cent in shipyard workers.

TABLE V. HOSPITALIZATION CASES AND DEATHS

Hospitals	Total	Per cent in group
Isolation	91	60%
Children's	28	18%
Letterman, United States Naval, United States Marine	22	14%
All other hospitals	6	8%
En route to hospital	2	
Coroner's cases not in hospitals	4	

As might well be expected, 91 cases or 60 per cent were cared for at Isolation Hospital; Children's Hospital received 18 per cent, and the three hospitals caring for military personnel (Letterman, United States Naval Hospital at Treasure Island, and United States Marine Hospital), had 14 per cent. Four patients died at home; 2 died en route to a hospital—a total of 6, about 3 per cent, not receiving hospital care.

TABLE VI. TREATMENT

	Drugs		Serum		Both		No. treatment	
Yr.	Cases	Dths.	Cases	Dths.	Cases	Dths.	Cases	Dths.
1939	1		2		2		1	1
1940	1		1				2	2
1941	2				2	1		
1942	18	1	1	1	8		3	3
1943	107	12			12	3	12	12
Tot.	122	13	4	1	24	4	18	18
Per cent deaths	10%		25%		17%		100%	

Patients definitely known to have had no treatment of any kind are those dying at home, en route to a hospital or very soon after entering a hospital. Cases with which no statement appears regarding the administration of drugs or serum have not been considered in the above tabulation.

Of the 27 local deaths in 1943, 15 received treatment, 104 cases were given treatment, a total of 119. All other cases and deaths in 1943 have been disregarded as incomplete records in the following tabulation:

TABLE VII. TIME INTERVALS

	Onset to hospitalization			Onset to treatment		
Time	Cases	Dths.*	Per cent deaths in group	Cases	Dths.*	Per cent deaths in group
Same day	15	3	20%	11	1	9%
1 day	34	4	11.8%	37	6	16.2%
2 days	25	1	4%	24	1	4%
3 days	14	1	7%	12	1	8⅓%
4 days	8	2	25%	10	2	20%
5 days over	21	3	14⅔%	19	3	15.8%
Not stated	2	1	50%	6	1	16⅔%

* Included in total cases.

TABLE VIII

Type of drug	Cases	Per cent in group
Sulfadiazine	96	80%
Sulfadiazine and sulfathiazol	3	10%
Sulfadiazine and sulfanilamide	8	
Sulfadiazine and sulfapyradine	1	
Sulfamerazine	8	7%
Sulfathiazol	1	1%
Sulfanilamide	1	1%
Not stated	1	1%

Sulfadiazine alone was used in the treatment of 80 per cent of the cases; used with another drug in 10 per cent of the cases. As the later cases were studied it was found that sulfamerazine was being introduced as a treatment and by the end of the period had been given in 7 per cent of the cases.

TABLE IX. HOW GIVEN

IV and orally	92	77%
Orally	18	15%
IV	6	5%
Not indicated	3	3%

TABLE X. AMOUNTS GIVEN

Amount	*Cases*	*Per cent in group*	*Total deaths in group*
5- 10 grams	1	1%	1
10- 20 grams	15	13%	9
20- 30 grams	6	5%	3
30- 50 grams	26	22%	
50- 70 grams	28	23%	
70-100 grams	23	19%	1
100-150 grams	7	6%	
150-over	1	1%	
Not stated	12	10%	1

TABLE XI. TEMPERATURE

Highest temperature	*Cases*	*Per cent in group*	*Total deaths in group*
—100 degrees	2	2%	1
—101 degrees	12	10%	1
—102 degrees	20	17%	1
—103 degrees	32	26%	3
—104 degrees	21	18%	
Over 104 degrees	29	24%	8
Not indicated	3	3%	1

LOS ANGELES NEEDS PUBLIC HEALTH NURSES

Nine regular Los Angeles City civil service vacancies as public health nurse must be filled as soon as possible. Because of the acute need for public health workers in this area, residence requirements have been waived. Candidates must be women who have California Registered Nurse and Public Health Nurse Certificates. Applicants will be rated by a professional board on the basis of applications and supplementary data submitted. There will be no written test. The salary range is from $170 to $190 per month. Applications will be accepted until further notice. For additional information, write or telephone the Los Angeles City Civil Service Commission, Room 11, Los Angeles City Hall, Mi 5211.

GONORRHEA: THE EPIDEMIC WE FACE

P. S. Pelouze, M.D.
Associate Professor of Urology, University of Pennsylvania

According to one of Webster's definitions, romance is a "dreamy, imaginative state of mind," though it is certain that he was not thinking of the treatment of gonorrhea when the definition was written. Romancing, according to him, is "To write or tell romances; indulge in extravagant stories." And here again he did not have in mind the numerous papers and statements that have appeared in scientific and lay publications on this subject.

There is nothing wrong with romance or romancing if he who reads or hears takes it for what it is. The trouble arises from getting the idea that he is being treated to *science* which, in its final analysis, should be *truth*. Truths are facts and in medicine facts should be based upon established things. They should not be founded upon dreams or even superficial observations if irreparable harm is to be avoided. Nowhere in all the field of medicine have fact and fancy been more thoroughly and more continually jumbled than is the case with gonorrhea and its treatment. Statements regarding the value of this or that treatment, often by those none too familiar with the disease itself, have appeared in our medical journals and later (sometimes before) in the lay press, until they have led the public to believe that gonorrhea no longer is a National problem, and the medical profession becomes temporarily enthusiastic, seemingly for purposes of later disappointment, often disgust.

It is not to be supopsed that any great number of those who wrote medical articles about the use of the sulfonamide drugs in the treatment of gonorrhea were consciously romancing, but often the product was just as misleading as though they were. Many of the articles showed an unfortunate lack of real knowledge of the cardinal principles of gonococcal infections. As the result of this, they fell into the rather common error of listing as "drug cures" a goodly percentage of patients who, though their disease might have been slightly influenced by the drugs, really owed their cure to the stimulation of native curative responses by local treatment, or to the fact that they eventually raised these responses spontaneously, as gonorrheics have done since the first gonococcus found the first urogenital mucous membrane. It is, and for some time has been, outstanding that the patient who carries the gonococcus beyond the first two weeks of sulfonamide medication is in no sense a "drug cure." He is either a local-treatment-stimulated cure or a self-cure. To call them all "drug cures" is to court romance.

Further, we have bandied around that word *cure* until many of us believe that all those patients whose symptoms have disappeared as the result of sulfonamide medication and who have passed beyond our observation were really cured. We have talked of pyretotherapy as though it, too, promptly *cured* all of the patients it rendered asymptomatic. We have talked of the glories of penicillin in the failures of the foregoing as though we had never a sororw left; we have hardly paused to wonder for whom pyretotherapy was available or was not (mostly not), or who could get penicillin for the treatment of gonorrhea, or who could afford to pay for it if it were suddenly were made commercially available. Most assuredly, he who thinks the time has not arrived for puncturing a host of therapeutic bubbles certainly has not traveled far from his own doorstep nor analyzed conditions as they now exist.

We are at war, and war always has greatly increased, and probably always will increase what some like to

call illicit sexual contacts; such contacts spread gonorrhea, which always was one of the greatest causes of "lost man-days." We might get some idea of its comparative importance among the armed forces with that of syphilis by calling attention to the fact that, where such infections are reported to local health authorities by the armed forces for searching out sources, from 7 to 10 cases of gonorrhea are reported to every new case of syphilis—in one State, at least, the ratio varies from 15 to 30 of gonorrhea to a new one of syphilis. If we spread this to war industry, the importance of knowing just where we stand therapeutically becomes increasingly obvious. This is by no means reduced when we think in terms of society at large and those thousands of teen-age and older women who through superpatriotism (or something) "think that the least that they can do for those who are going to risk, perhaps lose their lives, is to minister to their 'creature comforts.'"

Time was, and not so long ago, when he who raised a voice against the runaway type of "scientific" investigation that put sulfonamides on the map so far as the treatment of this disease is concerned, was called some pretty harsh names. I know, because I admonished caution when I discussed the first paper read in this Country on the treatment of gonorrhea with sulfanilamide. All I said was, "From a very limited experience with sulfanilamide I am afraid that if we are not very careful we shall look in vain for the hoped-for reduction in incidence." So guarded a statement as that made me rather unpopular in some quarters for a year or more until the awakening came. Now the American Neisserian Medical Society and a host of interested clinicians insist that this particular drug should not be used for the treatment of gonorrhea.

Then came the later sulfonamides and a number of investigative reports to the effect that they would cure 80 per cent or more in five days. The idea gained general credence—I thought it was so myself until I saw where we had stubbed our collective toes. Many physicians believe it today, but it never was, and never will be, true. Of course, we are blaming our present-day awakening upon the hard-to-prove ideas that thousands of our citizens are being made "sulfa-resistant" through the promiscuous use of drugs or that we are developing a lot of strains of gonococci that can "take" our sulfonamides and ask for more. These things may be true; it is also true that our numerical cure standards were decidedly inflated. Apparently we cannot do much about this sulfa-resistance matter, but we could cut down our 80 per cent yardstick to something nearer the real truth—say to about 60 to 65 per cent under ordinary treatment conditions. And, also, as will appear later, we had better not be too sure that more than two-thirds of those patients are really *cured* when they seem to be. We may get getter asymptomatic rates (commonly called "cure rates") by placing our patients in bed for the first three or four days of medication, and we will get far lower asymptomatic rates in individuals subjected to grilling periods of strenuous activity—such as soldiers on maneuvers and the like.

During the last two years I have talked with hundreds of physicians treating large numbers of patients for gonorrhea, and I have found no glowing optimism regarding those high percentages of cure. Almost to a man they have had a rude awakening. They are talking about 60 per cent asymptomatic rates in males and less than 50 per cent in institutionalized females. They are also making far less use of the word *cure*.

There are other factors at play in both asymptomatic rates and true cure rates. It is the general opinion in military circles that sulfathiazole is almost a specific for the Negro race; naturally, the higher the percentages of Negroes in any treatment group, the higher the asymptomatic and, probably, the cure rate. In this regard early in the use of sulfathiazole, when gonorrheics were hospitalized, I was struck by the few Negroes with gonorrhea in military wards as compared with white patients, despite the higher infection incidence in the former. Inquiry among the medical personnel brought out the fact that on only a few occasions had it been found necessary to transfer Negroes from station to general hospitals for pyretotherapy; most of those so transferred were white men. Thus doctors in the south talk of higher cure rates than are found in the north, where the ratios between white and Negro troops usually are reversed. One group thinks itself better than the other, and the other wonders how it gets that way. Study of the comparative rates in the races would do much to encourage the low-cure-rate boys in the north.

I must admit that I have always been rather skeptical and somewhat concerned about sulfathiazole as a prophylactic—there was just a little too much of the unknown. My attitude was that when it could be shown that asympomatic gonococcus carriers were not being made, I might grow a little more enthusiastic about sulfathiazole. I realized what a ticklish matter it was, and even now I feel it is unwise for me to go into details about the matter lest I shatter some highly valued friendships. I do think, however, the matter should be reinvestigated most carefully—it is far too important to be allowed to limp along as it is now. I am reliably informed that among the military personnel coming into one of our ports from a certain country approximately 90 per cent of those who have gonorrhea had had sulfathiazole before and after exposure. The arresting part of this information was that none of the patients developed symptoms in less than two weeks after exposure and many of them not until

three or four weeks had elapsed. If this is so, and I think it is, an investigator could be grossly deceived unless he had his "guinea pigs" under close observation for at least a month, perhaps longer. To go completely overboard without such a restudy would hardly be in the interests of disease prevention.

So far as the question of gonorrhea prevention is concerned, there unquestionably is something in the general clinical picture which is heading us toward a real epidemic and which, in my opinion, will probably double within the next year some of the low incidence rates of which we now boast. The trouble rests in the frequent differences between asymptomatic rates and true cure rates. Gradually we are learning that those who said there was little or no asymptomatic gonococcus carrier rate among patients seemingly cured by sulfathiazole were somewhat in error, and the error in some groups may be as high as 32 per cent.

It has been my good fortune to have had an opportunity to come into personal contact with those who did the clinical and laboratory work upon which the report of Koch, Mathis and Geiger (Venereal Disease Information, February, 1944) was based; I have seen neither better clinical work nor an investigative group with a better conception of the confusing factors which so commonly cause work on gonorrheal patients to be misleading. Among a mixed group (male and female) they were able to obtain positive gonococcus cultures in 32 per cent of those rendered asymptomatic by one course of sulfathiazole.

One of our large naval hospitals, dealing solely with males, obtained a 23 per cent positive culture rate among those rendered asymptomatic by sulfathiazole medication.

Reverting to the report of Koch, Mathis and Geiger, it is of interest to note that, within the first month after the positive culture, 47 per cent had reached and held a culture-negative state; by the end of the second month, 34 per cent more were negative; by the end of the third month, 14 per cent more, and later, 5 per cent still gave positive cultures.

There is no need to resort to a crystal ball in order to estimate what this means in terms of disease spread; there is not the slightest reason to doubt that the gonococci of these asymptomatic individuals produce the disease when transmitted to other individuals. In many patients the duration of the carrier state is such as to offer us a terrific challenge in these days of ready assumptions of cure because all symptoms have disappeared. They call for patient control and patient instruction regarding the protection of others for far longer periods of time than generally are being carried out or revised. In no other way can we prevent the harvest of infection that is now in the making.

So far as civilian practice is concerned, the fumings of the lay press, and often of the medical press from which it frequently gets its ideas, have caused a complete reversal of the old order. Today the tablet is king and the physician is merely the means of obtaining the tablet. Particularly in the southern and the eastern States, the physician is not even thought of, and the druggist takes his place in a dangerous number of cases. Even in the armed forces it is often possible to circumvent the medical officers and to obtain enough sulfathiazole to at least hide symptoms. In other words, thousands upon thousands of patients make their own pronouncements of "cure" and blithely return to their former activities. This, of course, always occurred to some extent, but never in such proportions as now.

Someone once remarked that in every great advance there is always some loss. In former days, the physician and his local treatments amounted to something in the therapeutic picture. At least he was able to keep a large percentage of his patients under observation for a reasonable length of time and thereby did much to prevent disease spread. The case-holding value of gentle local treatment, so far as gonorrhea is concerned, is beyond dispute, and I am convinced that much was lost in epidemiologic values when it was so generally abandoned. Since I am not practicing for the duration, I do not think I can be accused of a monetary slant when I suggest that we would increase our value to society at large and the war effort in particular if, in a large measure, we went back to where we were before we had sulfonamides, unless pyretotherapy is available and penicillin can be had, particularly at a cost low enough for the income of the group wherein most of the gonorrhea is found. In other words, we should get the mind of the patient upon the physician and his treatments and foster the view that the tablets are a valuable adjunct rather than the be-all and end-all of therapeutic endeavor.

In view of the rather high failure rate and the hidden but arrestingly large asymptomatic gonococcus carrier rate as the result of sulfonamide medication, local treatment in the male is indicated in at least 50 per cent of the patients. Judged from the positive culture findings of the two investigative projects previously mentioned, the cases wherein such treatments have a true therapeutic value is probably around 75 per cent. As cultures are not universally available, and without them one cannot say with even reasonable safety who is or who is not a "carrier," the field of epidemiologic values could be greatly enhanced if we raised the figure to 100 per cent for most in civilian practice.

When one talks of local treatment for gonorrhea in the male it goes almost without saying that he means

sensibly planned and carried out measures, utterly devoid of trauma and the high pressure of fluids that do so much toward spreading the infection into structures where it otherwise seldom would enter. It was the unskilled and injudicious application of local treatments that did so much to discredit them. Few who used local treatments properly could deny that they promote curative effort on the part of the patient and, in the final analysis, the patient was the one who produced the cure —we helped or hindered him depending upon what we did and how we did it. The definite sulfonamide failure needs local treatment. The carrier state will be greatly shortened by it, society needs it for its case-holding value at least, and I can conceive of no other way by which the physician can take his rightful and highly needed place in the unfortunate scheme of things as they now exist. To let scientific but unavailable possibilities serve as our justification for following the course of least resistance (and bother) is to miss the mark. The millennium for the gonorrheic is not yet with us to the extent that we should further foster in him the present miracle-tablet-worship while we go no further than "the laying on of hands"—if we do even that.

Before we return to local treatments, however, there is a crying need for an understanding of the underlying principles of gonococcal infections. Without it, the physician blunders in his local treatments, but with it he is a gift to his patient and need make no apology to society.

Above all let us realize that, as things are at present, we already have started toward the greatest epidemic of gonorrhea that our country has ever experienced. Whether we reap its full harvest or check it depends solely upon what we do about the matter and how we do it. It is not alone the problem of the armed forces and the Public Health Service; it is the problem of society at large and the medical profession in particular. We can check this epidemic if we will.—Venereal Disease Information, March, 1944, Vol. XXV, No. 3.

In this war great emphasis has been placed by our armed forces upon scientific training and upon the products of applied science. It should be emphasized, however, that only in less degree are they calling for men and women training in the arts, in English and other languages, in social science and history.—Henry N. MacCracken.

The Japanese boy is trained to go to a place, stay there, fight and die. We train our men to go to a place, to fight, to win and to live. I can assure you, it is a better theory.—Major General Vandegrift.

EPIDEMIC MENINGITIS IN CALIFORNIA

Epidemic meningitis increased more than 52 per cent during the first three months of 1944 as compared with the first three months of 1943. Four hundred twenty-three cases in civilians of California were reported during the first quarter of 1944, as compared with 277 cases in civilians during the first quarter of 1943. In 1942 the total number of civilian cases reported in the State was 207; in 1943, 927; and during the first quarter of 1944, 423 such cases have been reported.

The distribution of cases, in general, seems to follow the distribution of the general population, although in some of the rural counties the incidence is unusually high. The following table shows the distribution of epidemic meningitis cases among civilians in California together with deaths and fatality rates for 1942, 1943 and the first three months of 1944:

EPIDEMIC MENINGITIS—CASES AND DEATHS

County	1942			1943			1944		
	Cases	Deaths	Fat. rate	Cases	Deaths	Fat. rate	3 mos., Jan.-Mar.		
							Cases	Deaths	Fat. rate
Alameda	18	8	44.4	119	10	8.4	61	....	....
Alpine	....	....	....	....	....	....	....	....	....
Amador	....	....	....	1	....	....	....	....	....
Butte	1	1	....	3	....	....	....	....	....
Calaveras	....	....	....	....	....	....	....	....	....
Colusa	2	....	....	49	5	10.2	18	....	....
Contra Costa	....	....	....	....	....	....	....	....	....
Del Norte	....	....	....	....	....	....	....	....	....
El Dorado	....	....	....	....	....	....	....	....	....
Fresno	3	....	....	13	2	15.4	5	....	....
Glenn	....	....	....	1	....	....	....	....	....
Humboldt	....	....	....	1	1	....	....	....	....
Imperial	1	1	....	3	....	....	4	....	....
Inyo	1	....	....	1	....	....	....	....	....
Kern	4	....	....	8	1	....	7	....	....
Kings	....	....	....	3	....	....	....	....	....
Lake	....	....	....	....	....	....	....	....	....
Lassen	1	....	....	....	....	....	....	....	....
Los Angeles	89	32	36.0	263	48	18.2	121	....	....
Madera	....	....	....	3	1	....	....	....	....
Marin	1	....	....	8	....	....	5	....	....
Mariposa	1	1	....	....	....	....	....	....	....
Mendocino	....	....	....	4	2	....	....	....	....
Merced	....	....	....	3	....	....	....	....	....
Modoc	....	....	....	....	....	....	....	....	....
Mono	....	....	....	....	....	....	....	....	....
Monterey	2	....	....	10	2	20.0	1	....	....
Napa	4	....	....	7	1	....	1	....	....
Nevada	....	....	....	....	....	....	1	....	....
Orange	2	....	....	13	3	23.1	8	....	....
Placer	....	....	....	1	1	....	....	....	....
Plumas	....	....	....	1	....	....	....	....	....
Riverside	2	....	....	9	1	11.1	12	....	....
Sacramento	9	1	11.1	46	10	21.7	9	....	....
San Benito	....	....	....	....	....	....	....	....	....
San Bernardino	3	....	....	17	5	29.4	9	....	....
San Diego	13	3	23.1	57	10	17.5	33	....	....
San Francisco	27	7	25.9	147	28	19.0	51	....	....
San Joaquin	2	2	....	38	2	5.3	10	....	....
San Luis Obispo	2	....	....	3	1	....	4	....	....
San Mateo	4	2	....	5	2	....	9	....	....
Santa Barbara	....	....	....	4	1	....	1	....	....
Santa Clara	1	....	....	17	2	11.8	12	....	....
Santa Cruz	1	....	....	2	....	....	1	....	....
Shasta	....	....	....	3	....	....	1	....	....
Sierra	....	....	....	....	....	....	....	....	....
Siskiyou	....	....	....	....	....	....	2	....	....
Solano	1	1	....	12	2	16.7	5	....	....
Sonoma	1	....	....	2	....	....	5	....	....
Stanislaus	....	....	....	5	....	....	3	....	....
Sutter	....	....	....	1	....	....	5	....	....
Tehama	....	....	....	1	....	....	1	....	....
Trinity	....	....	....	....	....	....	....	....	....
Tulare	1	1	....	6	....	....	7	....	....
Tuolumne	1	....	....	1	....	....	....	....	....
Ventura	3	1	....	2	5	22.7	5	....	....
Yolo	2	....	....	2	....	....	1	....	....
Yuba	1	....	....	6	1	....	3	....	....
California	3	1	....	6	2	....	2	....	....
Civilian total	207	62	30.0	927	149	16.1	423	....	....

Distribution, by months, of epidemic meningitis cases in civilians of California since January, 1942, is indicated in the following table:

CASES: EPIDEMIC MENINGITIS

Month	*1942*	*1943*	*1944*
January	21	52	138
February	11	95	121
March	15	130	164
April	22	109	---
May	20	96	---
June	16	97	---
July	15	53	---
August	12	56	---
September	11	65	---
October	20	39	---
November	19	53	---
December	25	82	---
Total	207	927	423
Total deaths	62	149	---
Fatality rate	30.0%	16.1	---

	1943	*1944*
January-March	277	423

Total State—Per cent increase over 1943: 52.7.

San Francisco's Experience

Dr. J. C. Geiger, Director of Public Health, San Francisco, has written an interesting statistical analysis of epidemic meningitis in San Francisco for the five-year period 1939 to 1943, which is published in this issue of "California's Health." The tabulations presented by Dr. Geiger include both civilian and military personnel. It is axiomatic that epidemic meningitis becomes more prevalent when groups of individuals in the younger age groups are housed together. War, with its wide movement of troops and the concurrent transfer of civilian groups to dormitories, camps and institutions, always produces an increase in the prevalence of this disease.

Dr. Geiger's analysis of the results achieved in the treatment of cases by serums and by drugs is enlightening.

NEW FILM ON PSYCHIATRY

Of interest to public health workers is a new film, "Psychiatry in Action" distributed by the British Information Services, 260 California Street, San Francisco.

The film shows the administration and types of treatment given in one of the seven hospitals which have been established in England for the treatment of neuroses. Of particular interest is the fact that civilians and servicemen are treated in one institution operated by the Emergency Medical Service of the Ministry of Health.

There is no virtue so truly great and godlike as justice.—Joseph Addison.

ONLY PHYSICIANS CAN SIGN PREMARITAL HEALTH CERTIFICATES

There has been considerable confusion relative to the interpretation of Section 7901 of the Civil Code relative to the signatures on premarital health certificates. Some county clerks have accepted certificates signed by other than registered physicians and surgeons. The Attorney General was asked for an opinion in the matter and under date of March 23, 1944, the following opinion was received:

Wilton L. Halverson, M.D.
Director of Public Health
668 Phelan Building
760 Market Street
San Francisco, California

Dear Sir:

In your letter of December 14th you ask whether a chiropractor holding a license issued by the Board of Chiropractic Examiners is a "duly licensed physician" and therefore legally qualified to sign premarital certificates as provided in Section 7901 of the Civil Code. You further request that, in order to avoid recurrent requests for an opinion as to each group that may claim the right to sign premarital health certificates as required by the above act, we render our opinion as to what license is required to fulfill the requirements as a duly licensed physician.

You further ask whether a county clerk who knowingly accepts a certificate signed by anyone other than a "duly licensed physician" is liable to prosecution under this act.

Section 2137 of the Business and Professions Code pertains to physicians' and surgeons' certificates and provides as follows:

> "The physician's and surgeon's certificate authorizes the holder to use drugs or what are known as medical preparations in or upon human beings and to sever or penetrate the tissues of human beings and to use any and all other methods in the treatment of diseases, injuries, deformities, or other physical or mental conditions."

The State of California has seen fit to regulate the practice of the various healing arts as provided by Division 2 of the Business and Professions Code. In each of the healing arts the qualifications, requisites and training of the applicants for such certificates vary. A successful applicant receiving a certificate to practice in the particular phase of healing arts to which he is licensed is restricted to the privileges and rights granted him by the certificate issued by the particular board having jurisdiction. In our opinion of October 17, 1940, to the Honorable Bertram P. Brown, Director of Public Health, No. NX3003, we referred to the case of In re Rust, 35 Cal. App. 422, and quoted from that case as follows:

> "The distinction between these certificates (physician's and surgeon's certificate and drugless practitioner's certificate) is quite marked and they are issued as a result of a different examination and it is very apparent to us that the term 'duly licensed

physician and surgeon' as used in the section of the act above quoted has a direct reference to the holder of the former class of certificates to the exclusion of the latter."

Our conclusion in that opinion held that a drugless practitioner was not a duly licensed physician and may not issue the certificate referred to in the premarital examination law.

Chiropractors or other licentiates holding certificates to practice the healing arts are likewise limited to their particular professions, as are the drugless practitioners.

Section 79.01 of the Civil Code of California provides:

"Before any person who is or may hereafter be authorized by law to issue marriage licenses, shall issue any such license, each applicant therefore shall file with him a certificate from a duly licensed physician. * * *"

A certificate to practice as a duly licensed physician and surgeon may be issued only by the Board of Medical Examiners (Sec. 2137, Business and Professions Code) and Board of Osteopathic Examiners (Sec. 2491, Business and Professions Code). A licentiate of the Board of Chiropractic Examiners and licentiates of other licensing boards of the healing arts, other than those licensed by the Board of Medical Examiners and the Board of Osteopathic Examiners, are not duly licensed physicians and they may not issue or sign premarital certificates.

Section 2141 provides that any person unlawfully practicing as a licensed physician and surgeon is guilty of a misdemeanor.

Section 79.08 of the Civil Code provides:

"* * * or any licensing officer * * * who shall have reason to believe that any of the facts on the certificate form have been misrepresented, and shall nevertheless issue a marriage license * * * shall be guilty of a misdemeanor."

A county clerk, being a licensing officer, is guilty of a misdemeanor if the certificate form is signed by one not a duly licensed physician and for any other misrepresentation known to him appearing upon such certificate.

Very truly yours,

ROBERT W. KENNY, Attorney General
CARL W. WYNKOOP, Deputy

But the testimony of every scientist is that the frontiers that are opening out ahead of us now are far wider and more spectacular than any frontier of America in the past. Our horizons are not closed. We are going to write a greater development in America than has ever been conceived.—Eric A. Johnston.

RADIO BROADCAST PROVES POPULAR

"A million people heard the word SYPHILIS . . . *and liked it!*"

Under this caption, Los Angeles radio station KFI advertised in three National trade magazines the dramatic radio series "The Unseen Enemy" broadcast every Saturday night, 10.15 to 10.30 p.m., under the sponsorship of the California State Department of Public Health and the Los Angeles City and County Health Departments.

Started experimentally last August as a single broadcast on venereal diseases, "The Unseen Enemy" has proved so popular, both with the station and the radio audience, that it is now in the third series of 13 weekly programs. The three sponsoring agencies provide the scripts.

Radio time is given by KFI which has assigned one of its top producers to the show and also pays the bill for dramatic talent and other production costs. This station has performed a service of inestimable value to public health in demonstrating once and for all that venereal disease is a suitable subject for public education via the radio.

INSTITUTE ON COMMUNITY CONTROL OF VENEREAL DISEASE

In connection with the 1944 Summer Session on the Berkeley campus of the University of California, there will be an Institute on Community Control of Venereal Disease, to be offered for three weeks beginning June 26th.

The Institute will be open to graduate registered nurses, and will carry three units of credit. The tuition will be $17.50. Nonresident graduate nurses who are registered in their respective States may be admitted with the consent of the Department of Nursing.

Leading the Institute will be Mrs. Evangeline H. Morris, of the School of Nursing, Simmons College. Mrs. Morris is well qualified for this work because of her training, and because of her leadership in the field of social hygiene in community health associations, institutes, and summer sessions.

Medical aspects of the problem of venereal disease will be presented by staff members of the State Department of Public Health.

Inquiries concerning the Institute should be addressed to the Department of Nursing, University of California, Berkeley 4, California.

Two things profoundly impress me: the starry heavens above me and the moral law within me.—
—Immanuel Kant.

printed in CALIFORNIA STATE PRINTING OFFICE
SACRAMENTO, *1944* GEORGE H. MOORE, STATE PRINTER 22161 4-44 6500